UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/714,106 | 11/14/2003 | Thomas Alan Cain | 1497/6 | 2714 |

25297 7590 01/09/2008

JENKINS, WILSON, TAYLOR & HUNT, P. A.
3100 TOWER BLVD., Suite 1200
DURHAM, NC 27707

| EXAMINER | |
|---|---|
| MOORE, IAN N | |
| ART UNIT | PAPER NUMBER |
| 2616 | |

| MAIL DATE | DELIVERY MODE |
|---|---|
| 01/09/2008 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/714,106 | CAIN ET AL. | |
| | Examiner | Art Unit | |
| | Ian N. Moore | 2616 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *30 October 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *10-17* is/are allowed.

6)☒ Claim(s) *1-5,8,9,18,19,22-25 and 27-29* is/are rejected.

7)☒ Claim(s) *6,7,20,21,26,30 and 31* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10/30/07* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1,2,4,5,8,9,18,19,23 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graf (US006671367B1) in view of Araujo (US006097720A).

**Regarding Claim 1**, Graf discloses a method for transmitting a media gateway control command (see FIG. 3, control command; see col. 8, line 6-15; see col. 9, line 27-40) from a media gateway controller (see FIG. 3, MGC_B (Media Gateway Controller)) to a remote media gateway (see FIG. 3, MG_4 (Media Gateway 4)) using a protocol (see FIG. 3, STM (Synchronous Transfer Mode) protocol see col. 9, line 25-29), the method comprising:

(a) generating the media gateway control command (see FIG. 3, sending/generating control command (i.e. MEGACO or H.248 command) via X_CP interface (i.e. X_CP_3); see col. 2, line 1-4; see col. 9, line 27-65);

(b) the media gateway control command (see FIG. 3, control command (i.e. MEGACO or H.248 command) via X_CP interface (i.e. X_CP_3); see col. 2, line 1-4; see col. 9, line 27-65);

(d) transmitting the frame to a media gateway (see FIG. 3, MG_3 transmits STM frame to MG_4) using a time division multiplexed (TDM) channel (see FIG. 3, using a TDM channel which embedded/carried within STM (Synchronous Transfer Mode) network (e.g. ISDN, T1, E1, SDH, SONET); see col. 9, line 25-29).

Graf does not explicitly disclose a high-level datalink control (HDLC) protocol, (b) inserting the control command into a command packet; (c) inserting the command packet into an HDLC frame. However, Araujo teaches

(b) inserting a control command (see FIG. 2, adding/encapsulating/inserting Information 101 (i.e. IP packet with command/signaling/header information)) into a command packet (see FIG. 2, into a PPP packet which contains command/signaling/header information; see col. 7, line 31-50) and;

(c) inserting the packet into an HDLC frame (see FIG. 3, HDLC frame, where PPP packet is encapsulated/inserted into; see col. 7, line 50-54, 62 to col. 8, line 20); and

(d) transmitting the HDLC frame (see FIG. 11, transmitting PPP over HDLC frame via backbone tunnels 412) to a gateway (see FIG. 11, to edge Device 406) using a time division multiplexed (TDM) channel (see FIG. 11, using backbone TDM channels/tunnels 412 of Publish Switch Telephone Network (PSTN) 407: see col. 12, line 35-66).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a high-level datalink control (HDLC) protocol, (b) inserting the control command into a command packet; (c) inserting the command packet into an HDLC frame, as taught by Araujo in the system of Graf, so that it would provide a simple technique for encapsulating data from variety of protocols; see Araujo col. 5, line 23-27.

**Regarding Claim 2**, Graf discloses wherein generating a media gateway control command includes generating a MEGACO command (see col. 2, line 1-3; X-CP is a MEGACO (i.e. H.248 commands)).

**Regarding Claim 4**, the combined system of Graf and Araujo discloses inserting media gateway control command into the command packet as set forth above in claim 1.

Graf does not explicitly disclose a packet header portion and payload portion.

However, Araujo further discloses forming the command packet (see FIG. 2, forming/creating PPP packet) having a packet header portion (see FIG. 2, with a header 100) and a packet payload portion (see FIG. 2, and Information 101); see col. 7, line 31-50.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a packet header portion and payload portion in framing/encapsulating processes, as taught by Araujo in the system of Graf, so that it would provide a simple technique for encapsulating data from variety of protocols; see Araujo col. 5, line 23-27.

**Regarding Claim 5**, the combined system of Graf and Araujo discloses wherein forming the command packet as set forth above in claim 4.

Graf does not explicitly disclose a command flag in the packet header portion that indicates a type of payload contained in the packet payload portion.

However, Araujo further discloses inserting a command flag in the packet header portion (see FIG. 2, Protocol field 100 in the header) that indicates a type of payload contained in the packet payload portion (see col. 7, line 31-41; protocol filed identifies the datagram encapsulated in the information/payload).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a command flag in the packet header portion that indicates a type of payload contained in the packet payload portion in framing/encapsulating process, as

taught by Araujo in the system of Graf, so that it would provide a simple technique for encapsulating data from variety of protocols; see Araujo col. 5, line 23-27.

**Regarding Claim 8**, the combined system of Graf and Araujo discloses wherein transmitting the HDLC frame to the media gateway using the TDM channel as set froth above in claim 1. Graf further discloses transmitting the frame from the media gateway controller (see FIG. 3, MGC_B) to the remote media gateway located remotely from the media gateway controller (see FIG. 3, MG_4 is remote from MGC_B) using the TDM channel (see FIG. 3, using TDM channel embedded/carried within STM network) previously used to carry public switched telephone network (PSTN) data (see FIG. 3, TDM channel within STM network which previously used to carry PSTN/TDM data for previous TDM connection); see col. 9, line 25-29).

Graf does not explicitly disclose transmitting HDLC using the TDM channel previously use between PSTN switching offices.

Araujo discloses transmitting the HDLC frame to the remote gateway (see FIG. 11, sending/transmitting HDLC frames to Edge device 406, or RAS 406) using a TDM channel (see FIG. 11, using TDM channel/Tunnel 412) previously used to carry public switched telephone network (PSTN) data (see FIG. 407, PSTN 407 data, which formally/previously use to carry PSTN/TDM channel data for previous TDM connection) between PSTN switching offices (see FIG. 11, between PSTN switching CPEs 400-404 and 390).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide transmitting HDLC using a TDM channel previously use between PSTN switching offices, as taught by Araujo in the system of Graf, so that it would

overcome the requirement of expensive deployment to provide the needed capacity; see Araujo col. 2, line 15-25.

**Regarding Claim 9**, the combined system of Graf and Araujo discloses transmitting HDLC frame to the media gateway as set froth above in claim 1. Graf further discloses transmitting the media gateway control command (see FIG. 3, control command (i.e. MEGACO or H.248 command) via X_CP interface (i.e. X_CP_3); see col. 2, line 1-4; see col. 9, line 27-65) from a media gateway controller (see FIG. 3, MGC_B) to a media gateway local to the media gateway controller (see FIG. 3, MG_3) and from the local media gateway to the media gateway located remotely from the media gateway controller (see FIG. 3, MG_4); see col. 9, line 16 to col. 10, line 26).

**Regarding Claim 18**, Graf discloses a system (see FIG. 3, a telecommunication network) for managing a remote media gateway (see FIG. 3, MG_4 (Media Gateway 4)), the system comprising:

(a) a media gateway controller (see FIG. 3, MGC_B (Media Gateway Controller)) for generating media gateway control commands (see FIG. 3, control command, (i.e. MEGACO or H.248 command) via X_CP interface (i.e. X_CP_3); see col. 2, line 1-4; see col. 9, line 27-65);

(b) a local media gateway (see FIG. 3, MG_3 (Media Gateway 3)) operatively associated with the media gateway controller (see FIG. 3, MG_3 associated with MGC_B) for sending and receiving media streams to and from external networks (see FIG. 3, MG_3 couples to external network to transport (i.e. transmitting and receiving) user plane data; see col. 8, line 10-36; see col. 10, line 1-26);

(c) an interface (see FIG. 3, an interface that couples between MGC_B and STM interface of MG_3) operatively associated with at least one of the media gateway and the media gateway controller (see FIG. 3, the interface relates/associates with MG_3 and MGC_B) for transmitting media gateway control commands (see FIG. 3, transmitting control command (i.e. MEGACO or H.248 command) via X_CP interface (i.e. X_CP_3); see col. 2, line 1-4; see col. 9, line 27-65) intended for a remote media gateway (see FIG. 3, to MG_4) in frames (see FIG. 3, MG_3 transmits STM frame to MG_4; see col. 9, line 25-29); and

(d) at least one time division multiplexed (TDM) interface (see FIG. 3, TDM interface which is embedded/part of STM interface of MG_3) operatively associated with the interface for sending the media gateway control commands (see FIG. 3, STM interface associates/relates with the interface for sending control command (i.e. MEGACO or H.248 command) via X_CP interface (i.e. X_CP_3)) to the remote media gateway (see FIG. 3, to MG_4) via a TDM channel (see FIG. 3, using TDM channel which embedded/carried within STM (Synchronous Transfer Mode) network (e.g. ISDN, T1, E1, SDH, SONET); see col. 9, line 25-29).

Graf does not explicitly disclose (c) a high-level data link control (HDLC) interface for encapsulating data intended for a remote media gateway in HDLC frames; (d) associated with the HDLC interface.

However, Araujo teaches

(b) a local gateway (see FIG. 11, Edge Device 405; see FIG. 9, access Mux 102) for sending and receiving media streams (see col. 5, line 55-60; transmitting and receiving data traffic) to and from external networks (see FIG. 11, to and from a network of CPEs (400-404)); see col. 9, line 60 to col. 10, line 20; see col. 12, line 35-44);

(c) a high-level data link control (HDLC) interface (see FIG. 9, a combined interface of ports 103-105, bus 106, and CPU 107 that processes HDLC frames) operatively associated with at least one of the gateway (see FIG. 11, Edge device 405; see FIG. 9, access Mux 102; see col. 9, line 60 to col. 10, line 20) for encapsulating control commands (see FIG. 2-3, PPP packet with command/signaling/header information is encapsulated into HDLC) intended for a remote gateway (see FIG. 9,11, Edge device 406 or RAS 408) in HDLC frames (see FIG. 3, HDLC frame; see col. 7, line 50-54, 62 to col. 8, line 20); and

(d) at least one time division multiplexed (TDM) interface (see FIG. 9, Tunnel Port 108 of Access Mux 102 which has TDM capability; see FIG. 11, Tunnel 412 port of Edge Device 405) operatively associated with the HDLC interface for sending the control commands (see FIG. 3, Tunnel port associates/relates with the combined interface of ports for sending command/signaling/header information) to the remote gateway (see FIG. 9,11, Edge device 406 or RAS 408) via a TDM channel (see FIG. 11, backbone TDM channels/tunnels 412 of Publish Switch Telephone Network (PSTN) 407: see col. 12, line 35-66).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide (c) a high-level data link control (HDLC) interface for encapsulating data intended for a remote media gateway in HDLC frames; (d) associated with the HDLC interface, as taught by Araujo in the system of Graf, so that it would provide a simple technique for encapsulating data from variety of protocols; see Araujo col. 5, line 23-27.

**Regarding Claim 19**, Graf discloses wherein the media gateway controller (see FIG. 3, MGC_B) generates call control commands (see FIG. 3, control command, (i.e. MEGACO or H.248 command) via X_CP interface (i.e. X_CP_3); see col. 2, line 1-4; see col. 9, line 27-65)

intended for the remote media gateway (see FIG. 3, MG_4) and forwards the call control commands to the remote media gateway via the interface (see FIG. 3, forwarding the call via an interface that couples between MGC_B and STM interface of MG_3 to MG_4); see col. 9, line 25-29.

Graf does not explicitly disclose a high-level data link control (HDLC) interface.

However, Araujo discloses generate control commands (see FIG. 2, adding/encapsulating/inserting Information 101 (i.e. IP packet with command/signaling/header information)) intended for the remote gateway (see FIG. 9,11, for Edge device 406 or RAS 408) and to forward the control commands to the remote gateway via the HDLC interface (see FIG. 3, forwarding HDLC frame via a combined interface of ports 103-105, bus 106, and CPU 107; see col. 7, line 50-54, 62 to col. 8, line 20).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a high-level data link control (HDLC) interface, as taught by Araujo in the system of Graf, so that it would provide a simple technique for encapsulating data from variety of protocols; see Araujo col. 5, line 23-27.

**Regarding Claim 23,** Graf discloses wherein the interface and the TDM interface are located on the media gateway as set forth above in claim 18.

Graf does not explicitly disclose a high-level data link control (HDLC) interface.

However, Araujo discloses the HDLC interface and the TDM interface are located on the gateway as set forth above in claim 18.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide an HDLC framing, as taught by Araujo in the system of Graf,

so that it would provide a simple technique for encapsulating data from variety of protocols; see Araujo col. 5, line 23-27.

**Regarding Claim 27**, the combined system of Graf and Araujo discloses the interface encapsulates the media gateway commands in command packets as set forth above in claim 18.

Graf does not explicitly disclose encapsulating HDLC the command packet in the HDLC frames.

However, Araujo further discloses encapsulating control commands (see FIG. 2-3, PPP packet with command/signaling/header information is encapsulated into HDLC) in HDLC frames (see FIG. 3, in the HDLC frame; see col. 7, line 50-54, 62 to col. 8, line 20).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide encapsulating HDLC the command packet in the HDLC frames, as taught by Araujo in the system of Graf, so that it would provide a simple technique for encapsulating data from variety of protocols; see Araujo col. 5, line 23-27.

**Regarding Claim 28**, the combined system of Graf and Araujo discloses the interface encapsulates the media gateway control commands in command packets as set forth above in claim 18 and 27.

Graf does not explicitly disclose the HDLC interface constructs a header, each header including at least one identifier for indicating a type of control command.

However, Araujo further discloses wherein the HDLC interface constructs a header (see FIG. 2, a header 100) for each of the command packets (see FIG. 2, PPP packet), each header including at least one identifier (see FIG. 2, Protocol field 100 in the header) for indicating a type

of control command included in the command packets (see col. 7, line 31-41; protocol filed identifies the datagram encapsulated in the information/payload).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the HDLC interface constructs a header, each header including at least one identifier for indicating a type of control command in framing/encapsulating process, as taught by Araujo in the system of Graf, so that it would provide a simple technique for encapsulating data from variety of protocols; see Araujo col. 5, line 23-27.

**Regarding Claim 29**, the combines system of Graf and Araujo discloses wherein the TDM interface forwards the media gateway control commands as set forth above in claim 18. Graf further discloses transmitting the frame from a media gateway controller (see FIG. 3, MGC_B) to a media gateway located remotely from the media gateway controller (see FIG. 3, MG_4 is remote from MGC_B) using a TDM channel (see FIG. 3, using STM channel) previously used to carry public switched telephone network (PSTN) data (see FIG. 3, STM/TDM channel which previously/formally carries PSTN/TDM data); see col. 9, line 25-29).

Graf does not explicitly disclose transmitting HDLC using a TDM channel previously use between PSTN switching offices.

Araujo discloses transmitting the HDLC frame to a remote gateway (see FIG. 11, Edge device 406, or RAS 406) using a TDM channel (see FIG. 11, using TDM channel/Tunnel 412) previously used to carry public switched telephone network (PSTN) data (see FIG. 407, PSTN 407 data, which formally/previously use to carry PSTN/TDM channel data) between PSTN switching offices (see FIG. 11, between PSTN switching CPEs 400-404 and 390).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide transmitting HDLC using a TDM channel previously use between PSTN switching offices, as taught by Araujo in the system of Graf, so that it would overcome the requirement of expensive deployment to provide the needed capacity; see Araujo col. 2, line 15-25.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Graf in view of Araujo as applied to claim 1 above, and further in view of Archibald (US007054325B1).

**Regarding Claim 3**, the combined system of Graf and Araujo discloses wherein generating a media gateway control command as set forth above in claim 1.

Neither Graf nor Araujo explicitly disclose a media gateway control protocol (MGCP) command.

However, generating a media gateway control protocol (MGCP) between Media Gateway (MG) and Media Gateway Controller (MGC) is well known in the art as disclosed by IETF RFC-2705. In particular, Archibald discloses generating a media gateway control command includes generating a media gateway control protocol (MGCP) command (see FIG. 1, MGCP signaling messages are transmitted between MGC 10 and MG 12; see col. 4, line 25-27).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide MGCP command/message, as taught by Archibald, in the combined system of Graf and Araujo, so that it would provide a signaling protocol means for communication between MG and MGC; see Archibald col. 1, line 28-40.

4. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Graf in view of Araujo as applied to claim 18 above, and further in view of Scoggins'908 (US 20030227908A1).

**Regarding Claim 22**, Graf discloses wherein the interface and the TDM interface are located on the media gateway as set forth above in claim 18. Araujo discloses the HDLC interface and the TDM interface are located on the gateway as set forth above in claim 18.

Neither Graf nor Araujo explicitly located on the media gateway controller.

However, it is well known and established in the art that both media gateway and gateway controller can be integrated into one entity, by implementing interfaces of media gateway to media gateway controller. In particular, Scoggins'908 discloses that interfaces on the media gateway (MG) are also located on the media gateway controller (MGC) since both media gateway and media gateway controller are integrated into a integrated node 301 (i.e. by incorporating all interfaces of MG into MGC); see FIG. 3; see page 1, paragraph 13; see col. 3, paragraph 24,38).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide interfaces from media gateway to media gateway controller in an integrated node, as taught by Scoggins'908, in the combined system of Graf and Araujo, so that it would efficiently negotiate parameters and it will also save extra processing and space by having one integrated system; see Scoggins'908 page 2, paragraph 17-20.

5. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graf in view of Araujo as applied to claim 18 above, and further in view of Takeguchi (US 20030043734A1).

**Regarding Claim 24**, the combined system of Graf and Araujo discloses wherein the at least one TDM interface for connecting the media gateway controller to the remote media gateway as set forth above in claim 18.

Neither Graf nor Araujo explicitly disclose a plurality of redundant TDM interfaces for redundantly connecting.

However, Takeguchi discloses a plurality of redundant TDM interfaces (see FIG. 1, working unit 21 W and protection unit 21P of SDH/TDM transmission equipment 2) for redundantly connecting between two nodes (see FIG. 1, connecting protection lines 5 between SDH nodes 2 and 3; see page 5, paragraph 72-76.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a plurality of redundant TDM interfaces for redundantly connecting, as taught by Takeguchi, in the combined system of Graf and Araujo, so that it would provide performing a transmission processing of the transmission frame through protection line in lieu of the working line when a fault occurs; see Takeguchi see page 5, paragraph 73.

**Regarding Claim 25**, the combined system of Graf and Araujo discloses wherein the TDM interface is connected to the local media gateway and wherein the local media gateway switches HDLC frames to TDM interface as set forth above in claim 18.

Neither Graf nor Araujo explicitly discloses the local gateway/node detects failure of any one of the TDM interfaces and to switch frames from the failed interface to any of the other TDM interfaces.

Takeguchi further discloses wherein the plurality of redundant TDM interfaces are connected to the local gateway/node (see FIG. 1, working unit 21 W and protection unit 21P are

connected to SDH/TDM transmission equipment 2) and wherein the local gateway/node detects failure of any one of the TDM interfaces and switches frames from the failed interface to any of the other TDM interfaces (see FIG. 1, equipment 2 upon detecting a fault in working line and switching the transmission of frames to the protection line; see page 5, paragraph 72-76.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide wherein the local gateway/node detects failure of any one of the TDM interfaces and to switch frames from the failed interface to any of the other TDM interfaces, as taught by Takeguchi, in the combined system of Graf and Araujo, so that it would continue a normal communication after the failure; see Takeguchi see page 2, paragraph 22-24.

### *Allowable Subject Matter*

6. **Claims 10-17** are allowed.

7. **Dependent claims 6,7, 11-17, 20,21, 26, 30 and 31** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### *Response to Arguments*

8. Applicant's arguments filed 10/30/07 have been fully considered but they are not persuasive.

**Regarding claims 1-5, 8, 9, 18, 19, 22-25, and 27-29, the applicant argued that,** "...Graf does not disclose inserting a media gateway control command into a command packet, inserting the packet into a HDLC frame, or transmitting the HDLC containing the media gateway

control command to a media gateway using a TDM channel...applicants refers first to the usage to this term in applicant's specification and to two specification ...RFC 3425..for MGCP...and RFC 3525...for MEGACO...the applicant specification recites MGCP and MEGACO commands are used to manage media gateway (specification, page 3, lines 10-14), which provide bearer path connection between a TDM network and a packet network. Media commands are used to configure media gateways, including setting up HDLC channels (specification, page 12, line 21)...(specification page 13, lines 15-20)...(specification page 13, line 21 through page 14, line 4)...voice server modules (specification, page 14, line 5)....(specification page 13, line 10)...configure the media gateway to switch packets from the packet network to an appropriate voice server module 511 via packet matrix module 513, through TDM matrix module 515 to a TDM timeslot via a TDM network interface card 507 (specification, page 14, lines 5-14)... In Araujo, there is absolutely no teaching or suggestion of sending a media gateway control command to a media gateway via a TDM link...Araujo does not setup, take down, or in any manner configure a bearer channel...RAS 408 in Araujo is not a media gateway controller...the central office switch 16 in Araujo is not a media gateway...Araujo does not disclose inserting a media gateway control command into a command packet, inserting the packet into a HDLC frame, and transmitting the HDLC frame to a media gateway using a TDM channel..." in page 14-24.

**In response to applicant's arguments** against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re*

*Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, the rejection is based on the combined system of Graf and Araujo.

**In response to applicant's argument, the examiner respectfully disagrees** with argument above.

Graf discloses a method for transmitting a media gateway control command (see FIG. 3, control command; see col. 8, line 6-15; see col. 9, line 27-40) from a media gateway controller (see FIG. 3, MGC_B (Media Gateway Controller)) to a remote media gateway (see FIG. 3, MG_4 (Media Gateway 4)) using a protocol (see FIG. 3, STM (Synchronous Transfer Mode) protocol see col. 9, line 25-29), the method comprising: (a) generating the media gateway control command (**see FIG. 3, sending/generating control command (i.e. MEGACO or H.248 command) via X_CP interface (i.e. X_CP_3); see col. 2, line 1-4; see col. 9, line 27-65**); (b) the media gateway control command (**see FIG. 3, control command (i.e. MEGACO or H.248 command) via X_CP interface (i.e. X_CP_3); see col. 2, line 1-4; see col. 9, line 27-65**); (d) transmitting the frame to a media gateway (**see FIG. 3, MG_3 transmits STM frame to MG_4**) using a time division multiplexed (TDM) channel (**see FIG. 3, using a TDM channel which embedded/carried within STM (Synchronous Transfer Mode) network (e.g. ISDN, T1, E1, SDH, SONET); see col. 9, line 25-29**).

Araujo teaches (b) inserting a control command (**see FIG. 2, adding/encapsulating/inserting Information 101 (i.e. IP packet with command/signaling/header information)**) into a command packet (**see FIG. 2, into a PPP packet which contains command/signaling/header information; see col. 7, line 31-50**); (c) inserting the packet into an HDLC frame (**see FIG. 3, HDLC frame, where PPP packet is**

**encapsulated/inserted into; see col. 7, line 50-54, 62 to col. 8, line 20**); and (d) transmitting the HDLC frame (**see FIG. 11, transmitting PPP over HDLC frame via backbone tunnels 412**) to a gateway (**see FIG. 11, to edge Device 406**) using a time division multiplexed (TDM) channel (**see FIG. 11, using backbone TDM channels/tunnels 412 of Publish Switch Telephone Network (PSTN) 407: see col. 12, line 35-66**).

Thus, in view of the above, it is clear that the combined system of Graf and Araujo clearly discloses the broadly claimed invention.

In response to argument of Graf fails to disclose according to the standard RFC 3425 for MGCP and RFC 3525, examiner respectfully disagree with the argument.

First, Graf discloses sending/generating control command (i.e. MEGACO or H.248 command) via X_CP interface (i.e. X_CP_3); see col. 2, line 1-4; see col. 9, line 27-65. As well known in the art as one skilled in the ordinary art would clearly see that MEGACO is H.248 command utilizes in MGCP. Even applicant's own specification admits this fact in page 1, lines 10-12 which recites, "**using media gateway control (MEGACO/H.248)**". Applicant specification also admits that the use of MEGACO is well established as background conventional art in page 3, lines 12-15. Thus, it is clear that Graf conforms to Media Gateway Control Protocol by disclosing H.248 command.

Second, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the specificity of RFC 3425 and RFC 3525) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Third, even if features and functionalities RFC 3425 and RFC 3525 were claimed, one skilled in the ordinary would clearly see that the applicant is claming the features and functionalities of the well known standard. In such situation, so long as Graf discloses the use of MEGACO/H.248 command, Graf would clearly anticipate the features and functionalities of the applicant claimed invention of MEGACO/H.248 since such features and functionalities would be been inherent according to the standards (i.e. those features and functionalities must be performed for MEGACO/H.248).

**In response to applicant's argument** that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the *specific detailed features and functionalities recited in the specification, for example ... provide bearer path connection between a TDM network and a packet network... voice server modules... configure the media gateway to switch packets from the packet network to an appropriate voice server module 511 via packet matrix module 513, through TDM matrix module 515 to a TDM timeslot via a TDM network interface card 507...recited in specification, page 3, lines 10-14; page 12, line 21; page 13, lines 15-20; page 13, line 21 through page 14, line 4; page 14, line 5; page 13, line 10; page 14, lines 5-14*) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

**In response to applicant argument** on Araujo, the combined system of Graf and Araujo discloses that sending a media gateway control command to a media gateway via a TDM link and inserting a media gateway control command into a command packet, inserting the packet into a HDLC frame, and transmitting the HDLC frame to a media gateway using a TDM channel

as set forth above. Araujo is not required to disclose "a media gateway controller since Graf has already disclosed the media gateway control. As one skilled in the ordinary of telecommunication knows that media gateway controller products is actually gateway server. Moreover, both Graf's media gateway controller and Araujo's is a server has identifiable functionalities and features since they both are use as the gateway controller or sever to establish the connection.

**Regarding claims 3, 22, 24, 25, the applicant argued that**, "...Archibald fails to teach or suggest encapsulation a media gateway control command in a command packet, encapsulating the command packet into an HDLC frame, and sending the HDLC frame containing the media gateway control command to a media gateway a TDM channel...Scoggines likewise fails to teach or suggest encapsulation a media gateway control command in a command packet, encapsulating the command packet into an HDLC frame, and sending the HDLC frame containing the media gateway control command to a media gateway a TDM channel...Takeguchi fails to teach or suggest encapsulation a media gateway control command in a command packet, encapsulating the command packet into an HDLC frame, and sending the HDLC frame containing the media gateway control command to a media gateway a TDM channel..."in pages 19-23.

**In response to applicant's argument, the examiner respectfully disagrees** with argument above.

Neither Archibald, Scoggines, nor Takeguchi requires to disclose the argued limitation since the combined system of Graf and Araujo has already been disclosed encapsulation a media gateway control command in a command packet, encapsulating the command packet into an

HDLC frame, and sending the HDLC frame containing the media gateway control command to a media gateway a TDM channel in rejection and response set forth above. Thus, applicant arguments are irrelevant.

**Regarding claims 24 and 25, the applicant argued that**, "...Nowhere does Takeguchi disclose or suggest that the information passed from one SDH to another is used to set up and dismantle bearer channels associated with a call. Thus, for this additional reason the information sent from one SDH terminal to another SDH terminal cannot be a media gateway control command..." in page 22-24.

**In response to applicant's argument, the examiner respectfully disagrees** with argument above.

The combined system of Graf and Araujo have already disclosed the sending a media gateway control command in rejection and response above. Takeguchi discloses the well known teaching of failure recover in the TDM/SDH system where TDM/SDH working lines are protected by corresponding protection lines in case of a failure in working line (see rejection page 12-13 above). Again, the rejection is based on the combined system of Graf, Araujo and Takeguchi, and clearly the combined system discloses the applicant claimed invention.

***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ian N. Moore whose telephone number is 571-272-3085. The examiner can normally be reached on 9:00 AM- 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 571-272-7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ian N. Moore
Examiner
Art Unit 2616

12-9-07

DORIS H. TO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600